

Paul Holcomb

A retired veterinarian who:

- worked twenty-eight years helping eradicate brucellosis from Montana.
- Served twelve years as brucellosis epidemiologist for Montana.
- Tested cattle in Texas.
- Tested cattle in Oregon.
- Tested cattle in Montana
- Tested caribou on the North slope of Alaska.
- Tested cattle in the Aleutian Islands.
- Tested bison and elk in Yellowstone National Park for five years.

If he is not qualified to speak on the subject, I would like to know who in hell is.

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Enough Already!

Paul Holcomb

How could the Yellowstone National Park bison and elk brucellosis problem in southwestern Montana be a bigger mess? As a retired veterinarian who worked twenty-eight years helping eradicate brucellosis in Montana, I today view our situation with apprehension and dismay.

Yellowstone National Park and our politicians are playing fast and loose with Montana's brucellosis free status. Park animals are transporting brucellosis out of the Park into Montana, Idaho, and Wyoming. The rules are being bent and altered to please those who shout the loudest. One wonders if we are to slide back to where we were in 1953, when brucellosis was widespread, and the eradication program began.

We find ourselves in a threatened position for the main reason that Yellowstone National Park has refused, for fifty years, to clean up the intense brucellosis infection that exists in the Park bison and elk.

Beginning in 1953, veterinarians, livestock producers, and laboratory personnel began blood testing the herds of cattle and bison in Montana. The effort continued until every herd in the State had been tested. During this period, from

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1953 to 1983, over 2000 brucellosis infected herds were found. When the "dirty herds" were cleaned up, Montana was declared a Brucellosis Free State. We have enjoyed many benefits from this accomplishment, including but not limited to , no more human cases of brucellosis infection (Undulant fever).

In 1961, the U.S, Department of Agriculture sent me to Yellowstone National Park to test bison and elk for brucellosis. This work was done as part of the herd reduction program which was underway by the National Park Service for the purpose of reducing the number of animals to a level equal to the amount of available forage.

When I ran the first set of bison blood samples, I was stunned by the number of positive results I was finding. It was so bad that I wondered if my test antigen was faulty. We double checked our tests for accuracy, and found nothing wrong. Testing continued in the Park through the early sixties.

Many groups of bison in the Park were tested, and the infection rate was found to be from 35% to 50% positive!

Over 6000 elk were tested during this period, and the infection rate was found to be about 2%. This very low figure revealed that the elk, at that time, had a high degree of resistance to the huge disease challenge presented by the bison.

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Present day test results show that this natural resistance in the elk has been overwhelmed by a combination of factors: a. The huge disease challenge by the badly brucellosis infected bison, and b. The feed grounds of Wyoming. Today, infection rates in elk on the feed grounds have been reported at 39% and higher.

So now we have the present day situation where elk from Yellowstone National Park are spreading brucellosis infection into cattle herds in Montana, Idaho, and Wyoming. Since the year 2000, sixteen herds of cattle in those three states have been infected by Park elk. Let us not lose sight of the fact that this infection originated in the bison. Also, let us not lose sight of the fact that the Yellowstone National Park people have assured us for fifty years that their brucellosis infection could not leak outside the Park boundaries!

Since 1961 (50 years!), the National Park Service has been aware of the high levels of brucellosis infection in the Park animals, yet not one single thing has been done to assist the animals! As I see it, these animals belong to you and me, and to every other American. We resent the fact that our Park animals are allowed to endlessly suffer the ravages of this disease, with no effort to help them.

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Consider this, if the disease were eradicated from the Park, then healthy, disease-free animals would be welcome many places. Disease-free bison and elk are valuable commodities! The sale of surplus, disease-free bison and elk could be a major source of income to the Park. (Maybe they could fix their roads?) But diseased animals are a Pariah that will not be tolerated. Yet all efforts over the years to convince the National Park Service to eradicate the disease have been met with disdain and inanity. Our whole nation has eradicated brucellosis— everywhere except Yellowstone National Park ! This seemingly impossible eradication task has been accomplished in some very difficult places. Think of the difficulties in such places as the swamps of Louisiana and Florida. I have tested cattle in the Aleutian Islands . Many other very difficult places have succeeded in eradication brucellosis. The Nation's Parks, wildlife reserves, and privately held herds of bison have eradicated the disease. But not Yellowstone National Park!

We have one government agency (APHIS-Animal and Plant Health Inspection Service) that has struggled mightily to eradicate this disease, while another government agency (National Park Service) has struggled mightily to preserve this

Disease.

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Montana has established a zone around Yellowstone National Park which will supposedly catch any brucellosis emerging from the Park, and thereby preserve the rest of Montana from the disease. This zone is coming to be called "Dirty Zone Montana", while the rest of the State will be called "Clean Zone Montana". Can you imagine the thoughts of other States which will fight to maintain their brucellosis free status? Already two States have begun making rules which discriminate against cattle from "Dirty Zone Montana" No doubt more such discriminatory rules will be forthcoming, and the ranchers whose only fault has been to reside near Yellowstone National Park, will bear the brunt.

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Does it surprise anyone that this past February of 2011, our Fish, Wildlife, and Parks Department trapped and tested 100 head of elk over West of Ennis, Montana, and , when tested, found 4 of the elk positive to the brucellosis test. This area is outside the boundary of "dirty zone Montana"! So already we have a leak out of the "dirty zone" into the "clean zone". Now we must scurry about and expand our "dirty zone" so as to keep our "clean zone" clean. Oh me! Must we behave like children? Does anyone truly believe that "clean zone Montana" is really safe? Oh yes, the fish and wildlife people released the four positive testing, elk back out to run free. Do you suppose ranchers in that area will appreciate that?

Do you see now why I feel apprehensive? It has recently been proposed that a 25,000 acre piece of land North of Yellowstone Park, and in Montana, be designated a "buffer zone" where Yellowstone Park bison could be allowed to live free. Well, here we go again with a dangerous, unworkable plan. How could anyone suppose the bison would stay in the buffer zone? Most of us know that the bison will go where they please. Bison are not sheep! If we must have a buffer zone, then let the buffer zone be set up within the boundaries of Yellowstone National Park!

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During February of 2011, someone decided that a plot of National Forest land North of the Park, and in Montana, would be a good place for Park bison to graze. Twelve to fifteen head of bison were driven across Cut Ranch property to the Forest Service land, and left there in peace and happiness. But the bison were not happy. They immediately left the plot of Forest Service land, crossed the Yellowstone river, and settled down on private property owned by Frank Rigler.

Some people believe that if you test a group of bison and remove those that
test positive, then those that tested negative in the group may safely be turned
loose onto buffer zones or grazing areas. Don't you believe it! Those negative test
animals are "exposed", and will likely be incubating the disease. Some of them
would be expected to develop the disease at a later time. Then such an animal
could be expected to transmit the disease to resident elk, or cattle grazing under
permit. And don't forget, it has been demonstrated that the organism, Brucella
abortus can survive as long as six months on the ground if protected from sunlight
by shade, vegetation, etc.

Have you seen it said, by uninformed people, "You have never proved that bison can transmit brucellosis to cattle?" Let me address this statement.

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In the early 1960's, we isolated *Brucella abortus*, the causative organism of brucellosis, from the tissues of a bison cow in Yellowstone Park. This pure culture was sent to the National Animal Disease Laboratory at Ames, Iowa, where it was studied and characterized to the fullest extent possible. It was found to be identical in every respect to the common field strain of *Brucella abortus*, which was present in infected cattle in Montana and elsewhere. They considered it to be so identical that it was not considered necessary to demonstrate the transmission from bison to cattle. That was a bad mistake on our part, because for the next 50 years I have heard people say, "You have never proved that bison can transmit brucellosis to cattle." I am pleased today to say that I have proof.

Frank Rigler (See Frank Rigler on the preceding page. This is the same man.) is a Livestock producer who lives on the upper Yellowstone river North of Gardiner, Montana. He states that when he was a young man, it was a common occurrence to have Yellowstone Park bison come down the river to their ranch and mingle with their cattle. They transmitted brucellosis to the Rigler cattle, which suffered abortions and other symptoms of brucellosis. His ^{Father}~~uncle~~ then caught the disease (PNH) from the cattle, and suffered from the disease for years. This was a case of

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transmission in the "wild."

In 1989, a pure culture of *Brucella abortus* was sent to Texas A&M University, where scientists inoculated a group of healthy, disease free bison. The bison, of course became infected with the disease. Then these newly infected bison were put with a group of healthy, disease free cattle, and the cattle became infected with the disease.

So now, once and for all, may we dispense with the old, absurd statement to the effect that it has never been proved that bison can transmit brucellosis to cattle?

Another frequently heard statement today is that Yellowstone Park bison are "genetically pure." I refuse to accept this belief, and let me tell you why. Many years ago, the Park people decided that their bison herd had become depleted by poaching, and other causes. To remedy the situation, they imported a group of bison from the Charles Goodnight herd in the Texas panhandle. Another group of bison was imported from the Pablo-Allard herd in Northwestern Montana.

Both of those herds were the common plains bison, and they had been in contact with cattle. So, if Yellowstone Park bison had ever been something unique, something "genetically pure", they sure as heck are not unique now!

Bison are definitely not in danger of extinction! The last nationwide count

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that I know of revealed that over 250,000 head existed in our nation.

Enough already! We cannot sit here in Montana, fat, dumb, and happy, while our politicians and other uninformed people make unworkable allowances, buffers, and restrictions! Unless Yellowstone Park decides to allow the eradication of brucellosis in the bison and elk, this problem will not go away. It will come up year after year, as the disease spreads, not for years, not for decades, but FOREVER!

When the reduction program ended, and testing was discontinued, the count of bison remaining in the Park was 480 head. That would have been the best time to eradicate the disease. PNH

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